

1133-35-85

John A Toth* (jtoth@math.mcgill.ca) and **Jeffrey Galkowski**. *Eigenfunction scarring and improvements in L^∞ bounds.*

We study the relationship between L^∞ growth of eigenfunctions and their L^2 concentration as measured by defect measures. In particular, we show that scarring in the sense of concentration of defect measure on certain submanifolds is incompatible with maximal L^∞ growth. In addition, we show that a defect measure which is too diffuse, such as the Liouville measure, is incompatible with maximal eigenfunction growth. (Received July 12, 2017)